THE HONORABLE JAMES L. ROBART

**UNITED STATES DISTRICT COURT**
**WESTERN DISTRICT OF WASHINGTON**
**AT SEATTLE**

CENTER FOR BIOLOGICAL DIVERSITY,

Plaintiff,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Defendants.

CASE NO. C13-1866-JLR

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY'S AMICUS BRIEF IN SUPPORT OF DEFENDANTS

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## I. INTRODUCTION

This case raises the question of whether the Environmental Protection Agency (EPA) properly approved the Washington State Department of Ecology's list of impaired marine waters prepared for the 2010 listing cycle under Section 303(d) of the Clean Water Act (CWA). The Department of Ecology (Ecology) asks the court to uphold EPA's decision because EPA's decision is supported by law and the record, and is entitled to deference. Since the record does not contain any data showing that Washington's water quality standards are violated for ocean acidification, EPA properly approved Washington's decision not to list its marine waters as impaired for ocean acidification.[1] None of the 128 references provided by Center for Biological Diversity (CBD) to Ecology in support of listing demonstrates that ocean acidification is violating applicable water quality standards for marine aquatic life uses in Washington State. CBD also fails to demonstrate that Ecology overlooked studies that would have resulted in Ecology listing Washington's marine waters for ocean acidification. In addition, upholding EPA's approval of Ecology's decision appropriately avoids the necessary next step after listing of determining a total maximum daily load for pollutants in affected waters unless and until there is sufficient data and information to focus any regulation on sources that are causing the impacts.

Although the science did not support listing marine waters for ocean acidification during the 2010 cycle, Washington is concerned about ocean acidification's potential impacts on Washington's marine waters and aquatic life. Washington designated Puget Sound a "Category 2. Water of Concern" for potential impacts to fish and shellfish habitat from human

[1] Ocean acidification refers to decreases in ocean acidity from absorption of $CO_2$ emissions by the world's oceans. Global atmospheric $CO_2$ concentrations that are uniform throughout the world have increased since the industrial age because of human-caused $CO_2$ emissions. Oceans naturally experience variation in acidification from a variety of causes. Washington's marine waters experience unique variations in acidity measured by pH depending on the particular location and time of measurement. Scientists are working to understand the extent of pH variation that could be attributable to human-caused $CO_2$ emissions in Washington's marine waters in order to determine potential impacts of human-caused OA on Washington's aquatic life. WA-000731 (Moore 2012 at 36-38).

activities. Washington is also aggressively working together with other government officials and other partners to better understand ocean acidification and reduce $CO_2$ emissions to help avoid future ocean acidification impairment of Washington's marine waters.

## II. ARGUMENT

### A. EPA's Approval of Washington's Decision Not to List Marine Waters as Impaired for Ocean Acidification Was Reasonable Because None of the Relevant, Existing and Available Data Showed a Violation of Applicable Water Quality Standards.

CBD contends that Washington's marine waters should have been listed as impaired[2] for ocean acidification (OA) during the 2010 listing cycle under Section 303(d) of the CWA[3] because marine waters are failing to meet water quality standards due to OA. Motion for Summary Judgment by Plaintiff Center for Biological Diversity, Dkt. #33 at pp. 13-24. However, the studies that CBD relies on fail to support its argument. Of the 128 references that CBD submitted to Ecology, only ten were relevant to Washington waters. Of those eleven, four were news articles, one was an article from the Sightline Institute that drew no conclusions, and one was the findings and recommendations from the Southern California Coastal Water Research Project 2010 workshop, indicating that the extent of OA effects is unknown at present.[4] The remaining four references were studies that contained data that were not intended to and did not demonstrate impairment of Washington's marine waters for OA under Section 303(d). WA-000087.[5]

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[2] When determining the status of water quality in Washington and making its listing decision, Ecology places marine waters into one or more of five categories, only one of which, Category 5, represents the Section 303(d) list of impaired waters. The others are: Category 1. Segment Meets Tested Criteria; Category 2. Segment is a Water of Concern; Category 3. Segment Lacks sufficient Data; and Category 4. Segment Impaired But Does Not Require a Total Maximum Daily Load Determination. WA-001363-4.

[3] CWA, 33 U.S.C. § 1313(d)(1)(A), is referred to throughout this brief as "Section 303(d)."

[4] CBD's reliance on this workshop to demonstrate impairment of oyster populations in Willapa Bay is misplaced because the workshop found that existing datasets cannot explain the impacts of OA on shellfish productivity, and more data and smaller scale predictive modeling is needed. WA-000091.

[5] These studies include: (1) Barton et al., 2012: The Pacific oyster, Crassostrea gigas, shows negative correlation to naturally elevated carbon dioxide levels: implications for near-term ocean acidification (Barton 2012 Study); (2) Feely et al., 2008: Evidence for Upwelling of Corrosive "Acidified" Water onto the Continental Shelf (Feely 2008 Study); (3) Feely et al., 2010: The combined effects of ocean acidification, mixing, and respiration on pH and carbonate saturation in an urbanized estuary (Feely 2010 Study); and (4) Wootton et al., 2008: Dynamic patterns and ecological impacts of declining ocean pH in a high-resolution multi-year dataset; together with the Wootton, 2009: Dataset from Tatoosh Island (Wootton 2008 Study).

Ecology is designated as the state water pollution control agency authorized to take all action to meet the requirements of the CWA including adopting water quality standards and meeting Section 303(d) requirements. Wash. Rev. Code (RCW) §§ 90.48.035, .260(1). To understand whether the four studies that CBD offers to show impairment of Washington waters demonstrated violations of any of Washington's applicable water quality standards, it is important to understand the nature of the standards and how Ecology applies the standards. Applicable water quality standards include (1) narrative designated uses for protection of indigenous fish and nonfish aquatic species Wash. Admin. Code (WAC) § 173-201A-210(1)); (2) numeric aquatic life pH criteria (or standards) to maintain those designated uses (a range of 7.0 units–8.5 units, with a human-caused variation of less than 0.2 (for extraordinary quality uses) or 0.5 (for excellent quality uses) within the range (WAC 173-201A-210(1) at tbl. 210(1)(f));[6] and (3) a narrative criterion that protects the designated uses from deleterious material concentrations that have the potential to adversely affect characteristic water uses, or cause acute or chronic conditions to the most sensitive biota dependent upon those waters (WAC 173-201A-260(2)(a)).

There are a number of requirements for showing a violation of applicable water quality standards. First, the data and information must show a violation linked to human causes. *See* WAC 173-201A-260 which states:

> It is recognized that portions of many water bodies cannot meet the assigned criteria due to the natural conditions of the water body. When a water body does not meet its assigned criteria due to natural climatic or landscape attributes, the natural conditions constitute the water quality criteria.

Under WAC 173-201A-260, if natural conditions are causing violations of the water quality standards, the standards are adjusted to account for natural conditions. The natural condition

[6] The standards are based upon EPA's recommendations for pH water quality criteria for the protection of marine aquatic life which guided Washington's adoption of its pH standards. *See* Cross Motion for Summary Judgment by Defendant United States Environmental Protection Agency, Dkt. #34 at p. 3.

cannot constitute a violation of the standards. Therefore, the standards may only be violated as a result of human causes.[7]

Second, violations of the designated uses arise only from impacts to *indigenous* fish and nonfish aquatic species. WAC 173-201A-210(1). Therefore, data and information that show impacts exclusively to aquatic species in hatchery environments cannot normally demonstrate a violation because the data normally cannot be extrapolated to natural species in the natural environment.

Third, where a study relies on violation of a pH standard, in order to use the study for purposes of Section 303(d) listing, Ecology's 303(d) listing policy requires a minimum of three excursions (exceedances) from all data considered, and at least 10 percent of values in a given year that do not meet the criterion. WA-001400. Ecology's listing policy implements Washington's Water Quality Data Act's requirement that data used for placement on the Section 303(d) list consist of an adequate number of samples based on the objectives of the sampling, the nature of the water in question, and the parameters being analyzed. RCW 90.48.585(1)(c), (3)(b). Thus, data and information about long-term trends that do not contain the requisite number of samples showing excursions in a given year will not support a listing decision.

Fourth, where a study is offered in support of listing marine waters (estuarine waters including Puget Sound and Washington's coastal waters), the samples or measurements must be representative of water quality conditions in those marine waters at the time the data were collected. RCW 90.48.585(1)(b). Data from only one sampling location is not representative of water quality conditions in all of Washington's marine waters.

[7] Under Ecology's Water Quality Program Policy 1-11 that addresses Section 303(d) listing, for violations of Ecology's narrative standards, there must be (1) documentation from human causes of environmental alteration relating to deleterious chemical or physical alterations, measured by indices of resource condition or resource characteristic or other appropriate measure, and (2) documentation of impairment of an existing or designated use related to the environmental alteration on the same water body segment or grid. WA-001380.

In addition to the requirements just described, where a numeric standard and a narrative standard exist for the same pollutant, generally Ecology relies on the numeric standard as the best indicator of impairment. Thus, studies that do not show violations of pH criteria for OA, including the criteria for human-caused variation in acidity, are less likely to result in a listing decision for the pollutant causing the violation of the standard.

Each of the four studies CBD submitted fails to meet one or more of the requirements to show a violation of water quality standards. The Barton 2012 Study reported results from an oyster hatchery study on the Oregon coast finding that influent water drawn from Netarts Bay was causing mortality from acidic conditions in the Whiskey Creek Hatchery system. WA-000087. However, the study did not find that the impacts to hatchery oysters resulted from human causes. Nor did the study address Washington's pH standards. It also focused on Pacific oysters that are not indigenous to Washington and on hatchery data rather than oysters in a natural setting, which prevented the results from being extrapolated with any certainty to a natural system. Thus, the study did not provide any basis for listing Washington marine waters for violation of either pH or narrative standards for aquatic life uses.

The Feely 2008 Study was aimed at understanding OA in coastal waters along the continental shelf of western North America from central Canada to northern Mexico. WA-000088. The study observed upwelled waters in the northern hemisphere—i.e., those waters, naturally rich in $CO_2$, that rise seasonally from deep in the ocean, to displace coastal surface waters relocated by the winds. It reported that the areal extent of naturally-$CO_2$-rich upwelled waters with low aragonite[8] levels was increased by human-caused $CO_2$ absorbed by surface waters. The study attributed low aragonite levels to the upwelling process, respiration processes, and anthropogenic (human) causes.

[8] Aragonite and calcite saturation states are reduced by acidity of seawater making it more difficult for calcifying organisms like shellfish to build their shells and skeletons. WA-001885.

The study's pH data showed pH values of "less than 7.75" units without any exact values and did not show violation of Washington's pH criteria (7.0 units--8.5 units). Dr. Feely reported to Ecology's marine monitoring unit that the data generated by electrode pH probe for this study could be subject to large, non-quantifiable errors, on the order of plus or minus 0.5 pH units, and were inadequate to assess changes in pH due to anthropogenic contribution. WA-000153. Such errors were significant since the possible errors equaled or exceeded Washington's allowable human-caused pH variation that the pH probes must measure to show a violation of the human-caused variation criteria (0.2 units and 0.5 units respectively for extraordinary and excellent quality waters that protect designated uses).

The study did not collect any biological data or report any observed impairments to aquatic life uses, but reported the need for further research on the impacts of OA on calcifying organisms under field conditions. Finally, the study did not address Washington's estuarine waters at all. For all of these reasons, the Feely 2008 Study did not provide any basis for listing Washington's marine waters for violation of either the pH or narrative water quality standards for aquatic life uses.

The Feely 2010 Study looked at the effects of OA and other natural and anthropogenic processes on Puget Sound. WA-000089. The study observed patterns of low pH and aragonite, finding that (1) the patterns are largely the result of natural mixing, circulation, and biological processes, and not the result of human causes; and (2) OA currently plays a smaller but important role in further lowering the natural pH levels since the industrial age by .05–.15 units. Feely 2010 Study at 12 [WA-000731]; WA-000089. The study's pH data did not exceed Washington's pH criteria for human-caused variation under Washington's credible data requirements for listing marine waters because the pH variation was estimated over decades and not demonstrated over a given year by at least 10 percent of sampling values in that year. WA-001400. Moreover, the study did not collect any biological data but rather highlighted the need for further research on the impacts of OA on aquatic life under field conditions. Finally,

the study did not address Washington marine waters outside Puget Sound. For these reasons, this study did not provide a basis for listing Washington's marine waters for violation of either the pH or narrative standards for aquatic life uses.

The Wootton 2008 Study demonstrated that data spanning eight years showed a decline in pH with increasing atmospheric $CO_2$ in tribal waters of Tatoosh Island, off the northwestern tip of the Olympic Peninsula on the Washington coast. WA-000093. The study found that applying the rate of pH change observed over eight years indicated a change in pH of 0.046 x 8 yrs = 0.368 units, and that the best fit parameter for explaining the change was the contribution of atmospheric $CO_2$. WA-000825. There are several reasons why CBD's reliance on this study is misplaced as a basis to list all of Washington's marine waters for OA. First, the study did not provide conclusive evidence that anthropogenic $CO_2$ was causing the change in pH. The study acknowledged uncertainty in the causes of what it described as rapid pH decline, and how the causes link to atmospheric $CO_2$. WA-000825. It recognized a long list of other potential causes including changes in salinity, water temperature, the upwelling index, local surface winds, precipitation, river discharge, two oceanographic condition indices, precipitation chemistry, dissolved organic carbon in river water, and nitrate, phosphate, and ammonia inputs. WA-000826. Ecology concluded that attributing the pH change to human causes is speculative because it could be caused by other competing processes including natural sources such as river discharges, long-shore shelf transport, and planktonic species composition.WA-000152.

EPA's expert concluded that it was not possible to determine whether the variation was due to climate change from anthropogenic $CO_2$:

> Analyses presented in this report suggest that a portion of the rapid decline in pH observed at Tatoosh Island may be related to differences in river discharge between the years, and a component of the decline in pH may reflect localized conditions rather than a large-scale decline in nearshore pH. The regression analyses in Section 3 shows that Model 2, which replaces the atmospheric $CO_2$ term with a Fraser River term, explains more variance than the model formulation in Wootton et al. (2008). This suggests that this regional driver may

> have contributed to the rapid decline in pH; and provides an alternate hypothesis.

WA-001357.

Second, the measurement of the magnitude of pH variation attributed to human causes did not meet Washington's credible data requirements for listing marine waters because the data for a single year indicated only a .046 change in pH purportedly from human causes, well below the prohibited human-caused-variation criteria of 0.2 or 0.5.[9] WA-001357. Third, the study did not show how any data that could have suggested human-caused influence at Tatoosh Island could be extrapolated to show human-caused influence in the rest of Washington's marine waters. RCW 90.48.585(1)(b) (samples relied on must represent water quality conditions at the time samples are taken for the water body proposed for listing). As Ecology explained in its record, Washington's marine waters are marked by complex differences in spatial and temporal conditions and dynamics, and experience different responses to large-scale oceanic and climatic patterns. WA-000152. The single sampling location in the Wootton Study did not show impairment across all of Washington's variable marine environments.[10]

For all of these reasons, the Wootton 2008 Study, like the other three studies, did not provide a basis for listing Washington marine waters for violation of either the pH or narrative standards for aquatic life uses.

CBD asserts that Ecology overlooked data and information that would have led to listing marine waters for OA. Motion for Summary Judgment by Plaintiff Center for Biological Diversity, Dkt. #33 at p. 24. However, the record reflects that Ecology considered all existing and readily available data. WA-000004. As Ecology considered listing for the 2010 cycle, Washington actively sought data collected by other federal and state agencies, tribes, local

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[9] The study also does not present credible data for listing marine waters because the estimated change in pH over a year was not presented as the result of at least 10 percent of values for that year as required under Ecology's listing policy. WA-001400.

[10] Tatoosh Island is located within the boundaries of the Makah Indian reservation where the tribe has independent authority for adopting water quality standards and responsibility for implementing regulations to comply with the Clean Water Act. Ecology does not normally list water body segments within the reservation.

governments, watershed councils and private and public organizations and individuals. Ecology began its process of collecting data by issuing a "call for data" that was published in the State Register in August 2009 announcing the dates for submittal of information from August 5, 2009, to October 15, 2009. Postcards were sent to over 300 names on the state's mailing list including federal, state, and local government agencies, and other people who had expressed an interest in being on Ecology's mailing list. Ecology also used an electronic mailing list. Ecology informed the public that new data must be submitted to Ecology through the Environmental Information Management (EIM) system. Ecology held four training sessions, including two in Lacey, one in Seattle, and one in Moses Lake between August 13 and September 3, 2009, to provide information on the assessment and data submission process and the use of the EIM system.[11] Ecology reviewed all the data received through that process.

In addition, as the agency charged with protecting the water quality of the state of Washington, Ecology is generally aware of any significant ongoing studies or data concerning OA impacts in Washington's marine waters. There were no studies or any information or data that Ecology was aware of that would have required listing its marine waters for OA. Moreover, CBD does not point to any data or information allegedly overlooked that would have required listing.

None of the data and information provided by CBD, or any other existing or readily available data or information, demonstrated that Washington's marine waters were violating water quality standards to support listing those waters under Section 303(d). On the contrary, the record supports Ecology's determination not to list marine waters for OA, and EPA's approval of Ecology's determination should be upheld.

[11] Ecology's website had information about how to access and submit data on the EIM for those who could not attend the training sessions.

**B. Upholding EPA's Approval of Ecology's Decision Avoids Forcing Ecology to Establish a Total Maximum Daily Load for Pollutants in Marine Waters Where Water Quality Violations Have Not Been Clearly Established.**

If a water body is listed for one or more pollutants, the state must establish for that water body, in accordance with a priority ranking, the total maximum daily load (TMDL) for the pollutant(s). 33 U.S.C. § 1313(d)(1)(C). A TMDL is focused on those pollutants that are "preventing or expected to prevent attainment of water quality standards." *Id.*; 40 C.F.R. § 30.7(c)(1)(ii). The purpose of the TMDL is to determine the level of a pollutant that a water body can sustain without violating water quality standards, and to limit discharges to the water body by pollutant sources in order to attain water quality standards. Ecology did not list Washington's marine waters because Ecology did not have sufficient data and information that human-caused alterations were causing violations of applicable water quality standards. Without a clear understanding of the causes and impacts of OA on aquatic life in Washington's marine waters, a TMDL cannot effectively ensure water quality standards are met. If Ecology were required to list marine waters and proceed with a TMDL without a better understanding of either the causes of acidification in different water body segments of Washington's marine waters, or the relative contributions of any human-caused sources of acidification, it could not determine what sources to regulate or how to fairly apportion permit limits to the various point and non-point source dischargers. Upholding EPA's approval of Ecology's decision not to list ensures a TMDL is not required unless it can effectively focus regulation on sources that are causing impacts in order to ensure water quality standards are met.

**C. Washington is Concerned About the Potential Impacts of OA and is Working to Avoid Impairment for OA of Washington's Marine Waters in the Future.**

Though the science did not support listing marine waters during the 2010 listing cycle, Washington is nevertheless concerned about the potential impacts of OA on Washington's marine waters. Having been a leader on climate change policy, research, and regulation for nearly a decade, Washington is acutely aware of OA's potential threat to marine aquatic life in



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Washington. To address the threat and avoid future impairment under Section 303(d), Ecology placed Puget Sound in Category 2. "Waters of Concern" during the 2010 listing cycle. WA-000154.[12] Placing Puget Sound in Category 2 will help Ecology and the public be aware of, track, and investigate the water quality concerns. *Id.* Ecology relied on the Feely 2010 Study, and two other more recent studies, for placing Puget Sound in Category 2. One of the more recent studies, Kolosseus, 2011: Focus on Dissolved Oxygen, Department of Ecology, Publication 08-10-030, addressed how nitrogen inputs from human activities affect dissolved oxygen in Puget Sound. WA-000154. The second study was Mohamedali et al., 2011: Puget Sound Dissolved Oxygen Model Nutrient Load summary for 1999-2008, Department of Ecology, Publication 11-03-057. WA-000154. This report presented estimates of nutrient loading into Puget Sound and the Straits of Georgia and Juan de Fuca from rivers and wastewater treatments plants. The study was intended to help (1) understand the behavior of Puget Sound under current and future conditions based on hydrodynamic and water quality modeling and; (2) determine the influence of human nutrient inputs on low dissolved oxygen levels relative to natural contributors. These studies will help Ecology understand the different, potential human causes of any impairments to Washington's marine waters.

Washington has been convening experts and performing additional research to learn more about how to address OA. Former Governor Gregoire created the Washington State Blue Ribbon Panel on OA to develop recommendations to respond to OA. The panel convened in February 2012, and in November 2012 released a report and technical document of findings and recommendations for action.[13] On November 27, 2012, in response to the panel's recommendations, former Governor Gregoire issued Executive Order 12-07 (Wash.),[14] that

[12] Category 2 applies when some credible data create concerns of possible impact to designated uses, but fall short of demonstrating a persistent problem. WA-000154.

[13] *See* Washington State Blue Ribbon Panel on OA, *OA: From Knowledge to Action* (2012), *available at* https://fortress.wa.gov/ecy/publications/publications/1201015.pdf.

[14] Executive Order 12-07 (Wash.), entitled *Washington's Response to OA*, is *available at* http://www.governor.wa.gov/office/execorders/eoarchive/eo_12-07.pdf.

directed the Department of Ecology and other cabinet agencies to implement the panel's key early actions.[15] One of those key early actions is research that Ecology and Pacific Northwest National Laboratory are doing, supported by an EPA grant under the National Estuary Program, to expand an existing computer model of dissolved oxygen in the Salish Sea[16] to include acidification parameters.[17] The model is intended to help quantify the relative contributions of global atmospheric $CO_2$ emissions, and local atmospheric $CO_2$ emissions and nutrient releases. The study will add to previous modeling efforts that indicated the Pacific Ocean has by far the greatest influence on Salish Sea dissolved oxygen concentrations, but that there are regions within Puget Sound that are more sensitive to local nutrient sources. The acidification modeling has just begun and will produce the first estimates by June 2017.[18]

Washington is seeking better indicators of OA for purposes of complying with Section 303(d) requirements. In December 2012, Ecology asked EPA to assess water quality criteria relevant to OA, citing views that current pH standards were inadequate to identify water quality impacts due to OA.[19] In response, EPA sent Ecology a letter dated April 19, 2013, applauding the state's efforts to address potential impacts of OA on the state's marine ecosystem. EPA agreed that recent scientific research indicates that other ocean chemistry indicators and biological parameters beyond pH may be relevant for OA. EPA pointed to multiple efforts to address causes and effects of OA including actions under the federal Clean Air Act to reduce carbon dioxide and other greenhouse gases to the atmosphere, assessments to

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[15] In 2013, the Legislature also created the Washington Marine Resources Advisory Council within the Office of the Governor to advise and work with the Washington OA Center on the effects and sources of OA, deliver recommendations to the governor and Legislature on OA, and seek funding sources to support the council's recommendations. RCW 43.143.050, .060.

[16] The Salish Sea extends from the north end of the Strait of Georgia to the south end of Puget Sound and west to the mouth of the Strait of Juan de Fuca.

[17] *See* http://www.ecy.wa.gov/programs/wq/PugetSound/DOModel.html.

[18] In 2013, the Washington Legislature appropriated over $1.8 million for the University of Washington OA Center and related work necessary to implement the recommendations of the Blue Ribbon Panel. *See* Third Engrossed Substitute S.B. 5034 § 606(7), 63rd Leg., 2d Spec. Sess., at 187 (Wash. 2013), *available at* http://apps.leg.wa.gov/documents/billdocs/2013-14/Pdf/Bills/Session%20Laws/Senate/5034-S.SL.pdf.

[19] Ecology's letter and EPA's response are both available at http://www.ecy.wa.gov/programs/wq/303d/currentassessmt.html.

address other contributions to OA (including local, land-based sources of nutrient pollution), and continuing discussions with other federal agencies.[20] Finally, EPA explained it was convening a workgroup to identify water quality parameters related to OA to contribute to a better understanding of the scale of potential impacts on aquatic life, relative contribution of drivers and sources, and the most meaningful metrics for assessing potential trends. As part of its ongoing work, EPA is examining Washington's water quality standards to determine if there is a better indicator for OA.

Washington is working to reduce greenhouse gas emissions including $CO_2$ emissions to avoid conditions that could lead to future impairment for OA of Washington's marine waters. Under RCW 70.235.020(1)(a), Washington established specific statewide greenhouse gas emission reduction limits that can be updated upon Ecology's recommendation to the Legislature based on current science.[21] Ecology and other governmental entities are implementing the reductions in RCW 70.235.020(1)(a) under the following statutory and regulatory measures including but not limited to:

- Greenhouse gas emission performance standards for baseload power plants including requiring TransAlta (Centralia) coal plant, the largest single source of greenhouse gas emissions in the state, to shut down one of its two coal units by 2020 and the second unit by 2025. RCW 80.80.040(3)(c)(i).
- Renewable energy portfolio standards. RCW 19.285.
- Ecology's greenhouse gas emission standards for petroleum refineries. WAC 173-485.
- Greenhouse gas emission standards for motor vehicles. RCW 70.120A.
- Statewide goals to reduce annual per capita vehicle miles traveled by 2050, RCW 47.01.440; authority for Washington State Department of Transportation to encourage alternative modes of transportation and develop an alternative fuels corridor pilot project. RCW 47.01.078(4), .440; RCW 47.80.023(1); RCW 47.38.070.

[20] EPA also indicated in its 2010 listing guidance that actions under the Clean Air Act to address impacts associated with greenhouse gas emissions, like OA, show the greatest promise to address these environmental challenges. WA-001116.

[21] Under RCW 70.235.020(1)(a): the state shall limit its emissions of greenhouse gases to achieve the following emission reductions for Washington state: (i) by 2020, reduce overall emissions of greenhouse gases in the state to 1990 levels; (ii) by 2035, reduce overall emissions of greenhouse gases in the state to 25 percent below 1990 levels; (iii) by 2050, the state will do its part to reach global climate stabilization levels by reducing overall emissions to 50 percent below 1990 levels, or 70 percent below the state's expected emission that year.

In 2013, Governor Inslee of Washington, together with British Columbia, Oregon, and California through the Pacific Coast Collaborative, called for additional west coast actions on climate leadership, clean transportation, and clean energy and infrastructure.[22] In 2013, the Washington Legislature established the Climate Legislative and Executive Workgroup (CLEW) to recommend a state program to reduce greenhouse gas emissions that would achieve the state's emissions limits outlined in RCW 70.235.020. Second Substitute S.B. 5802, 63rd Leg., Reg. Sess. (2013). Building on the work of the CLEW, Ecology, together with other state agencies and other organizations, is focused on reducing emissions under the direction of Governor Inslee's Executive Order 14-04 (Wash.),[23] from sectors that will produce the most significant reductions. Under Executive Order 14-04 (Wash.), the Governor's Carbon Emissions Reduction Taskforce will recommend, by November 2014, a carbon emission limits and market mechanisms program for Washington that will inform legislation to be requested by the governor for consideration during the 2015 legislative session. The program will establish a cap on carbon pollution emissions, with binding requirements to meet our statutory GHG emissions reductions, and include the market mechanisms needed to meet the reductions in the most effective and efficient manner possible. In addition, under Executive Order 14-04 (Wash.), the governor's office, state agencies, public entities and other organizations are working to develop and implement additional programs to reduce emissions in the following sectors and categories:

- Electricity – reduce imported coal-fired electricity consumed in the state
- Transportation – efficiency, planning, investment, and clean fuels and vehicles
- Clean technology – investment for new renewable energy and energy efficiency
- Energy efficiency – buildings, agriculture, and industries
- State government operations – clean cars and fuels, buildings

[22] *See* http://www.pacificcstcollaborative.org/Pages/Welcome.aspx.

[23] Executive Order 14-04 (Wash.), entitled *Washington Carbon Pollution Reduction and Clean Energy Action,* is *available at* http://www.governor.wa.gov/office/execorders/documents/14-04.pdf.

All of these initiatives will help ensure that $CO_2$ emissions are reduced as much as possible to avoid impairment to Washington's marine waters from OA.

## III. CONCLUSION

For the foregoing reasons, Ecology respectfully requests that the Court deny CBD's motion and grant EPA's cross motion for summary judgment.

RESPECTFULLY SUBMITTED this 29th day of August, 2014.

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**CERTIFICATE OF SERVICE**

I hereby certify that on the 29th day of August, 2014, a copy of the foregoing was filed with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the following:

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